



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/394,097	09/13/1999	PAUL JOSEPH DAVIS	DAVIS 11-16-8	3702
7590 07/09/2004				
WILLIAM H BOLLMAN MANELLI DENISON & SELTER PLLC 2000 M STREET NW SUITE 700 WASHINGTON, DC 20036-3307		EXAMINER SING, SIMON P		
		ART UNIT PAPER NUMBER		
		2645		
		DATE MAILED: 07/09/2004		

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/394,097

Applicant(s)

DAVIS ET AL.

Examiner

Simon Sing

Art Unit

2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 2, 8, 9, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlin et al. US 4,817,127 in view of Sacca US 5,692,042.

1.1 Regarding claim 1, Chamberlin discloses a modular telephone system in figures 4 and 6. Chamberlin teaches combining a speakerphone 18 (column 13, lines 29-31) with two recording/playback modules 12 and 14, one for recording a telephone conversation and one for playing an outgoing announcement (column 22, lines 38-43). Chamberlin also teaches independent operation of the speakerphone 18 and each recording/playback module (column 16, lines 19-43). Chamberlin's telephone system comprising:

a microphone signal (a speakerphone inherently has a microphone which produces a signal);

a gain module (a microphone inherently requires an amplifier to boost up its signal level for further processing);

a message playback signal from recording/playback module 14, relating to a pre-recorded voice message (column 21, lines 33-36);

a summer in the interface 66; and

a recording/playback module 12 for recording a telephone conversation (column 16, lines 2-5; column 22, lines 38-43);

Chamberline fails to teach recording a telephone conversation (including a microphone signal) while said microphone signal is combined with said message playback for transmitting to a far end user.

However, Sacca discloses a voice messaging system with speakerphone capability in figure 1 (column 7, lines 33). Sacca teaches transmitting a tape playback message, via switch 118 and amplifier 120, to a far end party in a speakerphone mode (column 8, lines 7-14, 26-29, 36-46). Sacca teaches that in the speakerphone mode, switches 112, 122 and 136 are closed (column 9, lines 45-47; column 8, lines 36-41) so that the tape playback message is combined with receive signals and microphone signals at summing amplifiers 120 and 142 (column 8, lines 39-49; figure 1), and users at either end can hear a playback message (switches 118 and 134 are closed) and concurrently converse with one another as desired.

Therefore, since the speakerphone and both recording/playback modules of Chamberlin operated independently from each other, i.e. all operated at the same time, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Chamberlin's reference with the teaching of Sacca, such that during a conversation which was being recorded by

Art Unit: 2645

a playback/recoding module, another recording/playback module would have been used to playback a user pre-recorded outgoing announcement as taught by Sacca, because such a modification would have enabled a near end user to inject other signals, such as a pre-recorded announcement or background music into a telephone conversation.

1.2 Regarding claim 2, the recording/playback module 14 inherently has an amplifier (message gain module) between the message playback signal and the summer.

1.3 Regarding claim 8, the Chamberlin's reference, modified by Sacca, teaches recording a telephone conversation while playing back a recorded announcement to a far end party, but fails to teach a transmit voice activity detector in communication with a transmit path.

However, Sacca further teaches a transmit voice activity detector 154 in communication with a transmit path, said transmit voice activity detector indicating a transmit condition of said speakerphone (column 2, lines 28-37; column 8, line 63 to column 9, line 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference with the further teachings of Sacca, so that the a transmit voce activity detector would have been included, because such a modification would have reduced the

Art Unit: 2645

gain of the receiving path to a minimum and thus would have reduced the side tone coupled to the speaker.

1.4 Regarding claim 9, Chamberlin teaches a telephone answering device (column 21, lines 27-36).

1.5 Regarding claims 10 and 15, Chamberlin discloses a modular telephone system in figures 4 and 6. Chamberlin teaches combining a speakerphone 18 (column 13, lines 29-31) with two recording/playback modules 12 and 14, one for playback and one for recording (column 21, lines 27-36). Chamberlin also teaches independent operation of each recording/playback module, and independent operation of the speakerphone (column 16, lines 19-43). Chamberlin teaches using the recording/playback module 12 for recording a telephone conversation and the recording/playback module 14 for playback a pre-recorded message to a far end user (column 16, lines 2-5; column 22, lines 38-43). Chamberlin teaches the steps of:

establishing a telephone call (column 7, lines 10-13; column 13, lines 29-33);

initiating a transmit function of a speakerphone generating a microphone signal (it is inherent that a speakerphone generates a microphone signal) (column 13, lines 29-31);

playing back a voice message pre-recorded on said speakerphone  
generating a playback message signal (column 16, lines 24-29; column 22, lines  
38-43); and

recording a telephone conversation (column 16, lines 2-5, 24-29; column  
22, lines 38-43).

Chamberlin fails to teach combining said microphone signal with said  
playback message signal, and transmitting said combined microphone signal and  
playback signal to a far end party over a telephone line.

However, Sacca discloses a voice messaging system with speakerphone  
capability in figure 1 (column 7, lines 33). Sacca teaches transmitting a tape  
playback message, via switch 118 and amplifier 120, to a far end party in a  
speakerphone mode (column 8, lines 7-14, 26-29, 36-46). Sacca teaches that in  
the speakerphone mode, switches 112, 122 and 136 are closed (column 9, lines  
45-47; column 8, lines 36-41) so that the tape playback message is combined  
with receive signals and microphone signals at summing amplifiers 120 and 142  
(column 8, lines 39-49; figure 1), and users at either end can hear a playback  
message (switches 118 and 134 are closed) and concurrently converse with one  
another as desired.

Therefore, since the speakerphone and both recording/playback modules  
of Chamberlin operated independently from each other, i.e. all operated at the  
same time, it would have been obvious to one of ordinary skill in the art at the  
time the invention was made to modify the Chamberlin's reference with the  
teaching of Sacca, such that during a conversation which was being recorded by

a playback/recoding module, another recording/playback module would have been used to playback a user pre-recorded outgoing announcement as taught by Sacca, because such a modification would have enabled a near end user to inject other signals, such as a pre-recorded announcement or background music into a telephone conversation.

2. Claims 3-7, 11-14 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chamberlin et al. US 4,817,127 in view of Sacca US 5,692,042 and further in view of Li US 5,612,996.

2.1 Regarding claims 3, 12 and 17, the Chamberlin's reference, modified by Sacca, teaches a message gain module, but fails to teach that the message gain module comprises an automatic gain control (AGC) portion and a fixed a gain portion.

However, Li discloses a speakerphone in figure 2, Li teaches an AGC 228 and a fixed gain module 218.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Sacca, with the teachings of Li, so that a gain module would have been comprised an AGC and a fixed gain module, with the teaching of Li, so that the message gain module would have comprised an AGC portion



Art Unit: 2645

and a fixed gain portion, because such a modification would have enabled the system to maintain a pre-determined signal level at the summer.

2.2 Regarding claims 4, 11 and 16, the Chamberlin's reference, modified by Sacca, teaches a gain module for the microphone, but fails to teach that the gain module comprises an automatic gain control (AGC) portion and a fixed a gain portion.

However, Li discloses a speakerphone in figure 2, Li teaches an AGC 228 and a fixed gain module 218.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Sacca, with the teachings of Li, so that the gain module would have been comprising an AGC and a fixed gain module, because such a modification would have automatically adjust the amplification factor of the gain module to satisfy various requirement.

2.3 Regarding claim 5, the Chamberlin's reference, modified by Sacca, teaches recording a telephone conversation with a playback pre-recorded announcement, but fails to teach a switched loss echo suppression module in the speakerphone 18.

However, Li discloses a speakerphone in figure 2, Li teaches a switched loss echo suppression module 232 (column 6, lines 15-29, 40-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Sacca, with the teachings of Li, so that a switched loss echo suppression module would have been included, because such module would have been reduced feedback from the microphone in a receiving mode, and such a component was widely used in speakerphones.

2.4 Regarding claim 6, as discussed in claim 1, Sacca teaches that said microphone signal is combined at summing amplifier 142 after a switched loss module 130.

2.5 Regarding claim 7, the Chamberlin's reference, modified by Sacca and Li, teaches combining the message playback signal with the microphone signal after a switched echo loss suppression module, but fails to teach a digital to analog converter (DAC) at a point of a transmit path.

However, Li discloses a speakerphone in figure 2, Li further teaches a DAC 234.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the Chamberlin's reference, which was modified by Sacca and Li, with the further teachings of Li, so that the Chamberlin's speakerphone 18 would have been a digital phone and a DAC would have comprised a DAC, because a DAC would have been required to convert digital signals in to analog to be coupled onto a telephone line.

2.6 Regarding claims 13 and 18, as discussed in claims 11, 12, 16 and 17, both message playback gain module and the gain module of microphone are automatically controlled.

2.7 Regarding claims 14 and 19, as discussed in claim 1, Sacca teaches that said microphone signal is combined at summing amplifier 142 after a switched loss module 130.

### ***Response to Arguments***

3. Applicant's arguments filed 04/02/2004 have been fully considered but they are not persuasive.

The applicants argue that the prior art of Chamberlin operates on two telephone lines based on column 16, lines 58-64 (page 9, paragraph 4; page 10, paragraph 3).

However, Chamberlin teaches in column 16, lines 58-64: " By way of example in the use of such interconnection, one recording/playback module may be used to record an incoming telephone call while a second recording/playback module would be used to transmit an outgoing message as is done in an automatic telephone answering system". Chamberlin does not teach two telephone lines. In fact Chamberlin teaches that his system operates only with one other telephone (one telephone line) (column 21, lines 27-36).

**Conclusion**

9. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Simon Sing whose telephone number is (703) 305-3221. The examiner can normally be reached on Monday - Friday from 8:30 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached at (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.



S.S.

06/28/2004

FAN TSANG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

